

Anti-collision flowchart

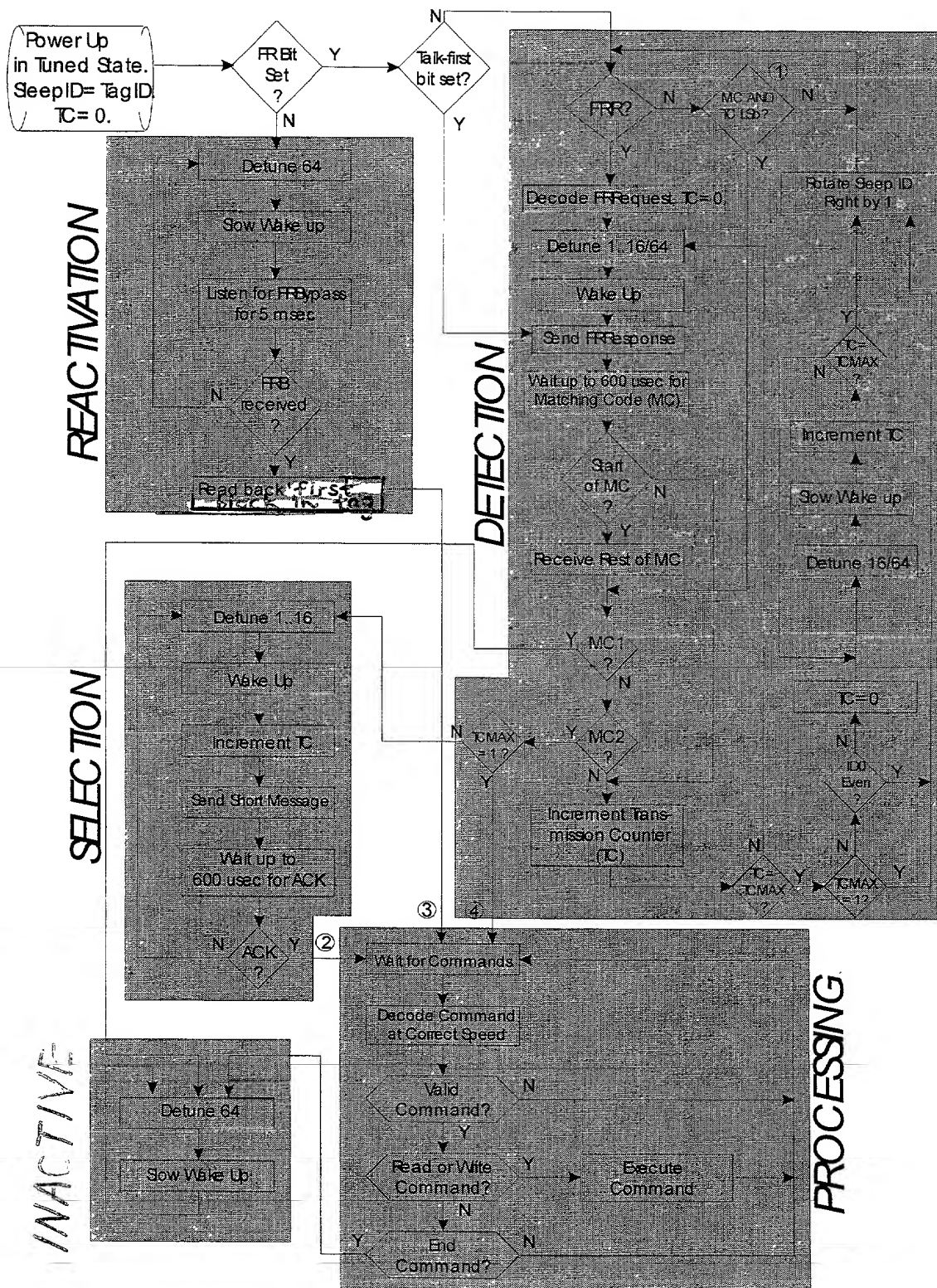
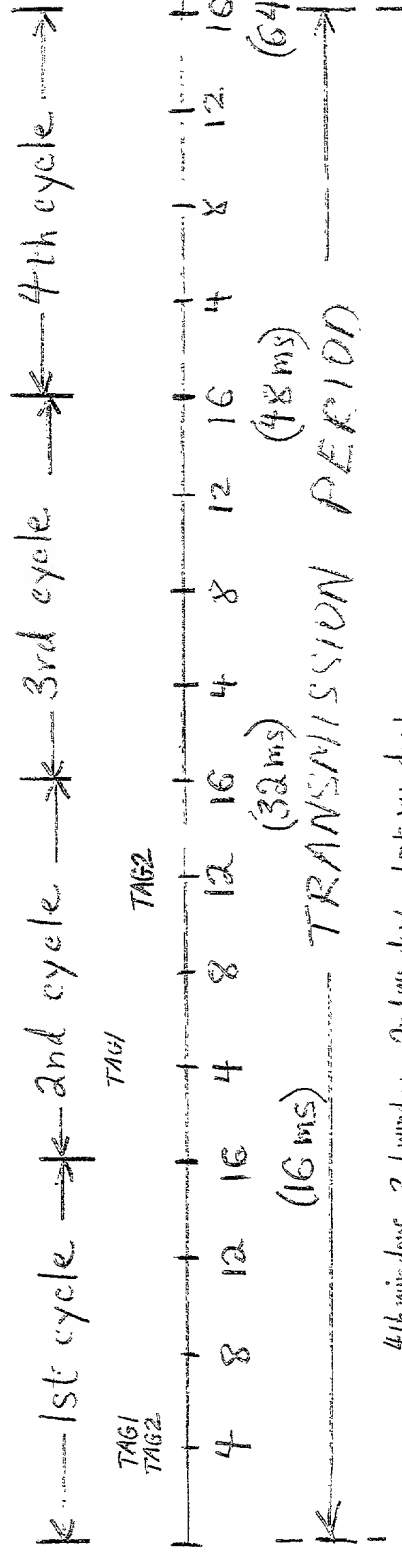


FIG. 1

SCOT-FLEED

FIG 2



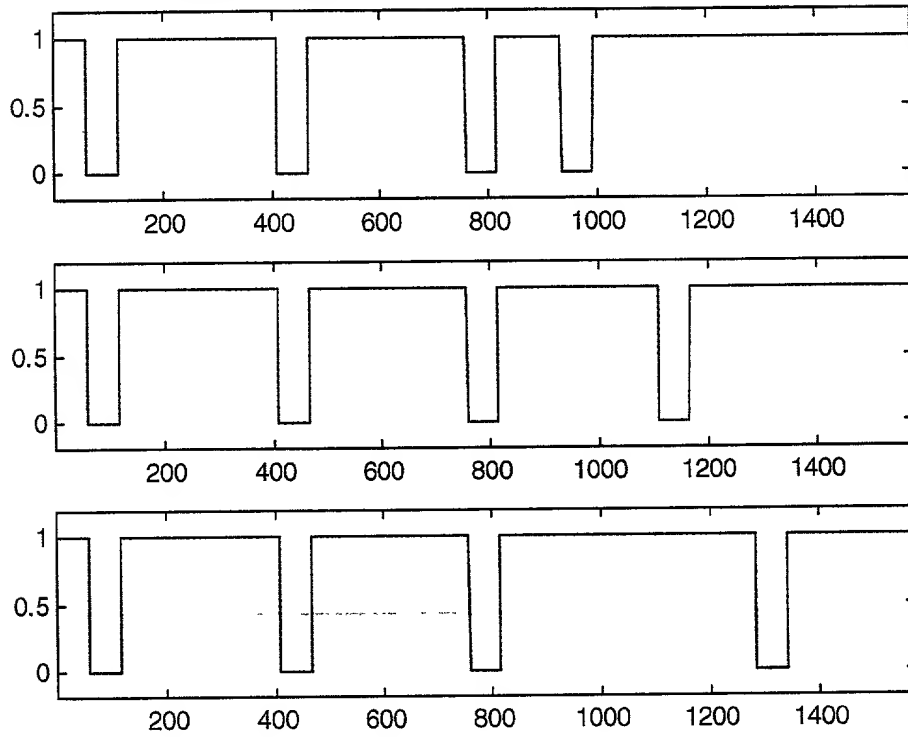
4th window	3rd window	2nd window	1st window
TAG 1	10	05	04
TAG 2	10	07	12
			04

same wake-up slot (collision)

different wake-up slots (no collision)

FIG. 3A

FRR,normal speed, TS=1,TCmax=(from top to bottom)1,2,4



FRR,fast speed, TS=1,TCmax=(from top to bottom)1,2,4

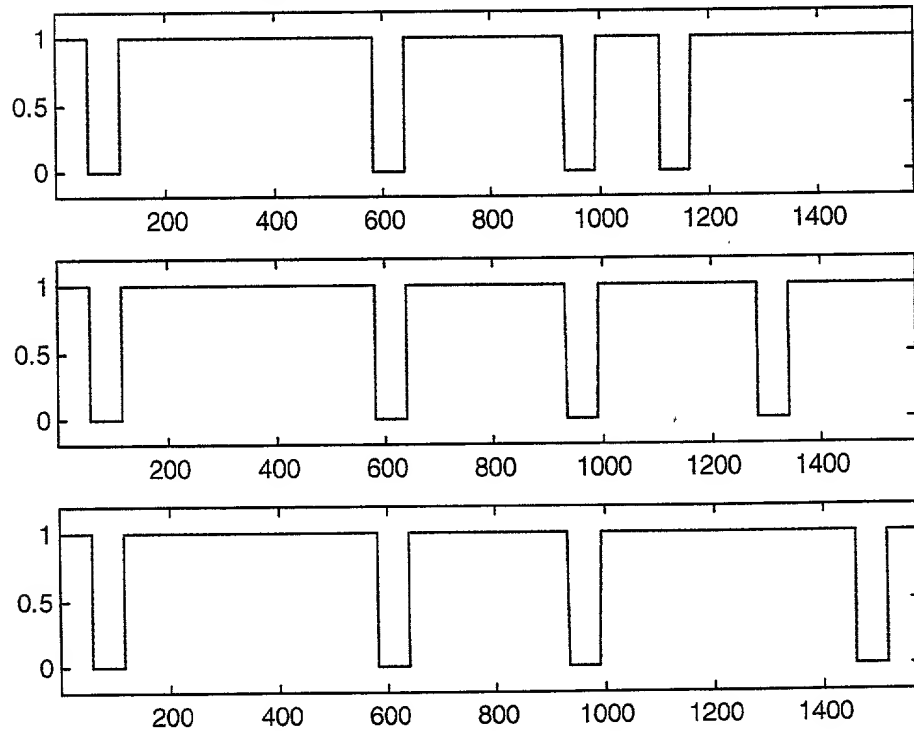


FIG. 3B

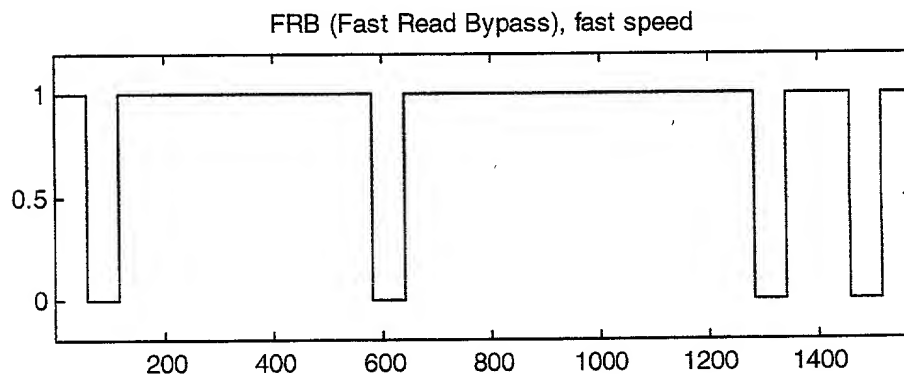
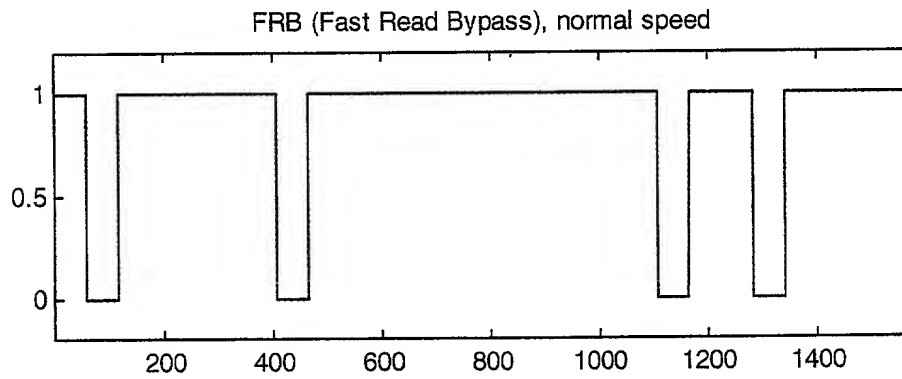
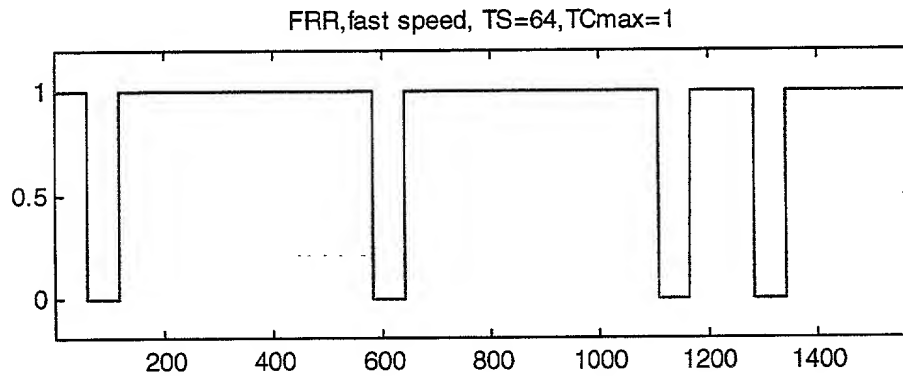
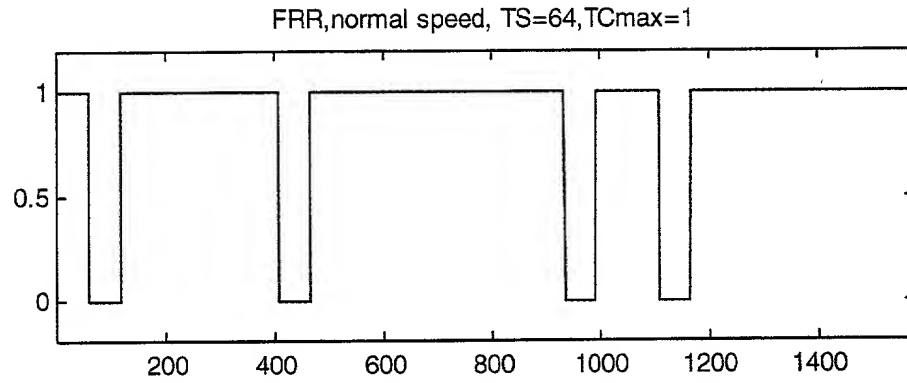


FIG. 3C

65/207" 86022450

"Match" code = Tag ID bit range a:b
$[4(TC+1)+3] \text{ modulo } 32 : [4TC] \text{ modulo } 32$

FIG. 4

Example : Tag ID =\$825FE1A0

TC	"Match"	ACK
0	\$A0	\$1
1	\$1A	\$E
2	\$E1	\$F
3	\$FE	\$5
4	\$5F	\$2
5	\$25	\$8
6	\$82	\$0
7	\$08	\$A

FIG. 5

Acknowledge = Tag ID bit range a:b
$[4(TC+2)+3] \text{ modulo } 32 : [4TC+8] \text{ modulo } 32$

FIG. 6

Timeslots	Wake-up slot = Tag ID bit range a:b
16	$[[4(TC+1)-1] \bmod 32 : [4TC] \bmod 32]$ XOR TC LSB
64	$[[4(TC+1)+1] \bmod 32 : [4TC] \bmod 32]$ XOR TC LSB

FIG. 7

TC		Relevant Number		Sleep Time 16		Sleep Time 64		Sleep Time 16 semi-inv.		Sleep Time 64 semi-inv.	
Tag ID \$825FE1A0								Wake-up slot			
0	\$A0	b1010 0000	\$0	0	\$20	32	\$0	0	\$20	32	
1	\$1A	b0001 1010	\$A	10	\$1A	26	\$5	5	\$25	37	
2	\$E1	b1110 0001	\$1	1	\$21	33	\$1	1	\$21	33	
3	\$FE	b1111 1110	\$E	14	\$3E	62	\$1	1	\$01	1	
4	\$5F	b0101 1111	\$F	15	\$1F	31	\$F	15	\$1F	31	
5	\$25	b0010 0101	\$5	5	\$25	37	\$A	10	\$1A	26	
6	\$82	b1000 0010	\$2	2	\$02	2	\$2	2	\$02	2	
7	\$08	b0000 1000	\$8	8	\$08	8	\$7	7	\$37	55	

FIG. 8